



Entrez PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Book

Search **PubMed** for

Limits

Preview/Index

History

Clipboard

Details

Show:

about Entrez

ext Version

1: Glycoconj J. 1995 Dec;12(6):755-61.

Related Articles, L

ntrez PubMed

view

elp | FAQ

tutorial

new/Noteworthy

Utilities

ubMed Services

journals Database

eSH Database

ngle Citation Matcher

atch Citation Matcher

linical Queries

nkOut

ubby

elated Resources

order Documents

LM Catalog

LM Gateway

OXNET

onsumer Health

linical Alerts

linicalTrials.gov

ubMed Central

Large-scale expression of recombinant sialyltransferases and comparison of their kinetic properties with native enzymes.

Williams MA, Kitagawa H, Datta AK, Paulson JC, Jamieson JC.

Cytel Corporation, San Diego, California 92121, USA.

Values of K_m were determined for three purified sialyltransferases and the corresponding recombinant enzymes. The enzymes were Gal beta 1-4GlcNAc alpha 2-6 sialyltransferase and Gal beta 1-3(4)GlcNAc alpha 2-3 sialyltransferase from rat liver; these enzymes are responsible for the attachment of sialic acid to N-linked oligosaccharide chains; and the beta 1-3GalNAc alpha 2-3 sialyltransferase from porcine submaxillary gland that is responsible for the attachment of sialic acid to O-linked glycoproteins and glycolipids. A procedure for the large scale expression of active sialyltransferases from recombinant baculovirus-infected insect cells is described. For the liver enzymes values of K_m were determined using rat and human asialo alpha 1 acid glycoprotein and N-acetyllactosamin as variable substrates; lacto-N-tetraose was also used with the Gal beta 1-3(4)GlcNAc alpha 2-3 sialyltransferases. Antifreeze glycoprotein was used as the macromolecular acceptor for the porcine enzyme. Values for K_m were also determined using CMP-NeuA as the variable substrate.

PMID: 8748151 [PubMed - indexed for MEDLINE]

Show:

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)

Sep 21 2004 15:



PubMed

National
Library
of Medicine 

| | | | | | | | | | |
|--|--------|--|--|--|-------------------------------------|------|------|----------|-------|
| Entrez | PubMed | Nucleotide | Protein | Genome | Structure | OMIM | PMID | Journals | Books |
| <input type="text"/> for <input type="button" value="Go"/> | | <input type="button" value="Clear"/> | <input type="button" value="Clipboard"/> | <input type="button" value="Details"/> | | | | | |
| <input checked="" type="checkbox"/> Limits | | <input type="button" value="Preview/Index"/> | <input type="button" value="History"/> | | | | | | |
| <input type="button" value="Display"/> <input type="button" value="Abstract"/> | | <input type="button" value="Show: 20"/> | <input type="button" value="Sort"/> | <input type="button" value="Send to"/> | <input type="button" value="Text"/> | | | | |

Text Version

1: Biochim Biophys Acta. 1995 May 11;1244(1):216-22.

Related Articles, Lin

Entrez PubMed

Overview

[Help](#) | [FAQ](#)[Tutorial](#)[New/Noteworthy](#)[E-Utilities](#)

Molecular cloning and expression of chick Gal beta 1,3GalNAc alpha 2,3-sialyltransferase.

PubMed

[Overview](#)[Help](#) | [FAQ](#)[Tutorial](#)[New/Noteworthy](#)[E-Utilities](#)

PubMed

[Overview](#)[Help](#) | [FAQ](#)[Tutorial](#)[New/Noteworthy](#)[E-Utilities](#)

Kurosawa N, Hamamoto T, Inoue M, Tsuji S.
Frontier Research Program, Institute of Physical and Chemical Research (RIKEN), Saitama, Japan.

PubMed

[Overview](#)[Help](#) | [FAQ](#)[Tutorial](#)[New/Noteworthy](#)[E-Utilities](#)

PubMed Services
Journals Database
MeSH Database
Single Citation Matcher
Batch Citation Matcher
Clinical Queries
LinkOut
Cubby

Related Resources

PubMed

[Overview](#)[Help](#) | [FAQ](#)[Tutorial](#)[New/Noteworthy](#)[E-Utilities](#)

A cDNA clone encoding chick Gal beta 1,3GalNAc alpha 2,3-sialyltransferase (ST3Gal I) was isolated from a chick embryo brain cDNA library. The cDNA sequence included an open reading frame coding for 342 amino acids, and the deduced amino acid sequence showed 64% identity with that of the mouse enzyme. Northern blot analysis of chick embryos revealed that the ST3Gal I gene was expressed in early embryonic stages. The identity of the enzyme was confirmed by construction of a recombinant sialyltransferase in which the N-terminal part including the cytoplasmic tail and signal anchor domain was replaced with an immunoglobulin signal peptide sequence. This enzyme expressed in COS-7 cells exhibited transferase activity similar to that of mouse ST3Gal I.

Order Documents
NLM Catalog
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central

[Write to the Help Desk](#)
NCBI | NLM | NIH
Department of Health & Human Services
[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)